State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor

Ted Stewart
Executive Director

James W. Carter
Division Director

355 West North Temple
3 Triad Center, Suite 350
Salt Lake City, Utah 84180-1203
801-538-5340
801-359-3940 (Fax)
801-538-5319 (TDD)

January 30, 1996

William and Preston Bown
Utah Building Stone Supply
842 West 400 North
Bountiful, Utah 84087

Re: Plan Review, Utah Building Stone Supply Company, Grouse Creek Quarry, M/003/031, Box Elder County, Utah

Dear Mr. Bown:

The Division has completed a review of your draft Notice of Intention to Commence Large Mining Operations for the Grouse Creek Quarry, located in Box Elder County, Utah, which was received November 27, 1995. After reviewing the information, the Division has the following comments which will need to be addressed before tentative approval may be granted. The comments are listed below under the applicable Minerals Rule heading. Please format your response in a similar fashion. Please note, you may not expand your operation until these permit application deficiencies are addressed and your plan is approved.

R647-4-105 - Maps, Drawings & Photographs

105.2 Surface facilities map:

The application does not have adequate drawings or descriptions to determine the areas to be disturbed. An accurate map of the middle slide area, the proposed sandalwood pit, the proposed quarry along the ridge near the Rusty Rock slide and any other areas where you will be using the excavator to remove stone.

105.3 Drawings or Cross Sections (slopes, roads, pads, etc.)

Please Provide typical cross sections of roads, pads, pits, and any waste rock areas.

A reclamation treatments map(s) is needed. This map(s) will need to show what roads will be reclaimed and which roads will remain as part of the post mining land use, areas that will be covered with soil, areas of solid rock outcrop (areas where topsoiling and seeding will not occur) and areas that may receive other reclamation treatments such as deep ripping, mulch, fertilizer, etc.

R647-4-106 - Operation Plan

106.3 Estimated acreages disturbed, reclaimed, annually.

Your Notice incorrectly identifies 8 acres of existing and proposed disturbance. When Division and BLM staff met with you in July and outlined the disturbed areas on the map, 19.22 acres were identified as disturbed or proposed to be disturbed, including the 7.93 acres of road that you will not be held responsible to reclaim. This leaves a balance of 11.29 acres of current disturbance. Since the 11.29 acreage figure assumed an eight (8)-foot width for proposed new roads and your large mining notice identifies a 12-foot width for new roads, this figure will need to be increased by 1.27 acres, for a total of 12.56 acres that you will be held responsible for reclamation. No acreage is given for work areas (loading, palletting, etc.). Your Notice (BLM form) indicates that this will be done on adjacent private lands. This area will need to be included as part of your State mining permit. Please identify the location and acreage of this area on your map. Your Notice will need to be corrected to show the correct disturbed acreage.

Please note, the 12.56 acres of current disturbance does not include any acreage for disturbance of the proposed Sandalwood quarry, the potential quarries in sections 34 and 35, T13N, R17W, areas where you plan to use your excavator to remove stone (i.e. middle slide area), or your work area on private lands. Acreage for these areas will need to be added to the 12.56 acres of current disturbance. Also, these areas cannot be developed until they are included and approved as part of the overall permit application.

Your Notice includes proposed reclamation of 2.4 acres of existing road. This acreage cannot be deducted until the reclamation work has been performed and the revegetation has survived at least one growing season.

106.5 Existing soil types, location, amount.

There are some soils that will need to salvaged as your mining operations expand. Specifically, appropriate soils should be salvaged and stockpiled as (proposed) new roads are developed and possibly at the proposed/potential quarry sites. Before these areas are disturbed, you will need to provide a soil analysis which includes: soil depth, texture, pH, SAR, EC, % Organic matter, Cation Exchange Capacity, and fertility [Nitrogen, Phosphorus (as P_2O_5) and Potassium (as K_2O)]. You will also need to estimate the total volume of soil that can be salvaged.

106.6 Plan for protecting & redepositing soils

This section was not addressed. Please describe how the soil materials will be stockpiled, protected, and how you will respread these soils at the time of reclamation. Also, please show on the map where these stockpiled soils will be located.

106.7 Existing vegetation - species and amount

This section was not addressed. Before you will be allowed to develop any of the proposed roads or quarry areas, you will need to provide the results of a vegetation survey which identifies the predominant vegetation of each area that will be disturbed and the percent (%) of vegetation ground cover. This information is also needed for each vegetation type that was presumed to exist for the current disturbed areas prior to permit approval. The BLM may be able to provide this information to you.

R647-4-107 - Operation Practices

107.3 Erosion control & sediment control

Please describe how you will minimize erosion and prevent sediment from leaving the site. (This will be primarily along the access roads and proposed quarry areas)

107.4 Deleterious material safety stored or removed

Please describe how potentially deleterious materials will be stored on site and removed (this includes fuel, oil, grease, etc.) Indicate the volume of these materials that you may need to keep on site at any one time and how they will be protected from spillage. If any of these materials are stored on-site, they will be required to be kept in a 100% containment structure.

107.5 Suitable soils removed & stored

Please refer to comments under section R647-4-106.5 and .6.

107.6 Concurrent reclamation

Your Notice includes plans to reclaim 2.4 acres of road by ripping and seeding. However, no seed mix is provided. While this is basically all that is needed for reclaiming the existing roads, you may need to construct waterbars or use other erosion control methods to keep runoff from eroding the steeper sections of the roads. Attached to this review is a proposed revegetation seed mix that has been reviewed by the BLM and would be acceptable for reclamation of all disturbed areas. If this seed mix is acceptable, you will need to make it a part of your plan.

R647-4-109 - Impact Assessment

109.1 Impacts to surface & groundwater systems

While impacts to groundwater may be negligible, impacts to surface waters need to be addressed. You need to discuss how drainages will be crossed and/or restored to minimize short and long-term impacts to stream channels.

109.4 Slope stability, erosion control, air quality, safety

Final reclamation contours, pit slopes, etc. need to be described for any quarry that you will be using your excavator in. Typical cross sections of the final (post reclamation) pit configurations showing final slope of the highwalls need to be provided.

R647-4-110 - Reclamation Plan

110.2 Roads, highwalls, slopes, drainages, pits, etc., reclaimed

At this time, all new roads must be reclaimed. If you wish to leave any new roads unreclaimed, you will need to request a variance and provide supporting documentation/justification from the BLM (for roads constructed on BLM lands) and from private land owners (for those on private lands). Supporting information should identify which roads will be left post-mining, why they are needed, and who will assume continued responsibility for them.

As pointed out earlier, there is in excess of 12.5 acres of road that you will be required to reclaim. You need to provide a reclamation plan for all roads identified on the map (except those identified as multi-purpose roads). Also, you will need to provide reclamation plans for any quarry locations that you are planning to use your excavator at and any associated work/palleting/loading areas.

110.5 Revegetation planting program

While the Division will grant variances to reseeding the talus slopes (assuming that the final surface is rock), areas where there is sufficient plant support material (eg., waste fines, etc.) and roads will need to be revegetated. Please describe the reclamation plan that will be used which may include plans for: regrading/recontouring, backfilling of disturbed areas, highwall reduction, ripping and/or scarifying of compacted surfaces, waterbars on roads, seed bed preparation, seeding techniques (application methods and seed rates), mulching, fertilization, etc.

R647-4-111 - Reclamation Practices

111.1 Public safety & welfare

1.15 Constructing berms/fences above highwalls

It is assumed that no highwalls will be left at a steeper angle than 45 degrees. Please confirm this assumption. If there will be highwalls left, please describe their stability and how the public access will be restricted using berms, fencing, etc. Please identify these areas on a map. Also, a formal request for a variance will need to be made for any highwalls left that will be steeper than 45 degrees.

111.2 Reclamation of natural channels

Please discuss how stream crossings and natural drainage channels will be reclaimed.

111.3 Erosion & sediment control

What measures will be used to control erosion at the time of reclamation?

111.6 All slopes regraded to stable configuration

Please refer to comments under section R647-4-110.2

111.7 Highwalls stabilized at 45 degrees or less

Please refer to comments under section R647-4-110.2 and 111.15.

111.8 All roads & pads reclaimed

Please refer to comments under section R647-4-110.2

111.12 Topsoil redistribution

Please refer to comments under section R647-4-106.6.

R647-4-112 - Variance

It appears that a variance has been requested for reclaiming new roads. Please refer to comments under R647-4-110.2. No other specific variances are requested.

R647-4-113 - Surety

Please prepare a detailed cost estimate for performing each item in the reclamation plan. The Division will use your estimate as a basis for calculating our own (third party) reclamation cost estimate for this site. Once the final reclamation surety amount is agreed upon by the Division and the Forest Service, you will be required to post the appropriate form of surety.

By certified letter dated December 20, 1995, you were given 60-days (from your receipt) to post a $25,000 interim reclamation surety with the Division. The interim surety is required in order to continue mining operations within the existing disturbed areas of the Grouse Creek mine site. Your received the letter on December 24, 1995. The deadline for receipt of this interim surety would accordingly be February 26, 1996. You will need to provide the $25,000 interim amount by this date, unless we work out a final reclamation surety estimate that is different than the interim amount by then.

The Division will suspend further review of the Grouse Creek Quarry NOI until your response to this letter is received. Please note, *no new disturbances are to be made* even though they may be

identified in your notice until the plan for this site is approved and surety is posted. If you have any questions in this regard please contact me, Tony Gallegos, Lynn Kunzler, or Tom Munson of the Minerals Staff. If you wish to arrange a meeting to sit down and discuss this review, please contact us at your earliest convenience. Thank you for your cooperation in completing this permitting action.

Sincerely,

D. Wayne Hedberg
Permit Supervisor
Minerals Regulatory Program

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Attachment
cc: Dan Washington, BLM,
M003031.rev

Recommended Revegetation Species List
for

Utah Building Stone
Grouse Creek Quarry
M/003/031

Prepared by DOGM January 17, 1996
(this mix was reviewed and OK'd by the BLM)

Common Name	Species Name	*Rate lbs/ac (PLS)
Thickspike wheatgrass	Agropron dasystachum	2.0
Bluebunch wheatgrass	*Agropyron spicatum*	2.0
Intermediate wheatgrass	*Agropyron intermedium*	1.0
'Piute' orchard grass	*Dactylis glomerata*	0.5
Basin Wildrye	*Elymus cinereus*	2.0
Ladac Alfalfa	*Medicago sativa*	1.0
Yellow sweetclover	*Melilotus officinalis*	0.5
Rocky mountain penstemon	*Penstemon strictus*	0.5
Small burnet	*Sanguisorba minor*	1.5
Wyoming big sagebrush	*Artemisia tridentata wyomingensis*	0.1
Serviceberry	*Amelanchier alnifolia*	1.0
Forage kochia	*Kochia prostrata*	0.5
Bitterbrush	*Purshia tridentata*	1.0
	Total	13.6 lbs/ac

***This the recommended drill seeding rate.**
If the species are to be broadcast seeded, increase the rate by 50%.